

1143-62-119

Vladas Pipiras* (pipiras@email.unc.edu), Department of Statistics & OR, CB# 3260, Hanes Hall, UNC-CH, Chapel Hill, NC 27599, **Changryong Baek** (crbaek@skku.edu), Dept. of Statistics, Sungkyunkwan University, 25-2, Sungkyunkwan-ro, Jongno-gu, Seoul, 110-745, South Korea, and **Stefanos Kechagias** (stefanos.kechagias@sas.com), SAS Institute, 100 SAS Campus Drive, Cary, NC 27513. *Asymptotics of bivariate local Whittle estimators with applications to fractal connectivity.*

Several methodological and numerical issues behind the local Whittle estimation of long and short memory in bivariate stationary time series with possible fractional cointegration are reexamined. These issues include the asymptotic normality for all model parameters, local Whittle plots for phase parameter and fractal connectivity, and others. For fractal connectivity, in particular, it is advocated to work with a model parametrization for which the model parameters associated with this phenomenon are identifiable and could be tested naturally within the local Whittle estimation framework. A simulation study and data applications are also considered. (Received August 04, 2018)